

What Is Claimed Is:

1. An image sensor module connected to a flexible PCB, comprising:

a flexible PCB for transferring and transmitting electric signals;

an image chip seated in a hollow area formed on a side surface of the flexible PCB;

a predetermined transparent medium having a printed circuit of a predetermined pattern on an upper surface thereof;

a first bump and a second bump formed on the upper surface of the transparent medium, the first bump being electrically connected to the chip pattern of the image sensor seated on the flexible PCB by bonding, and the second bump being electrically connected to the circuit of the flexible PCB; and

epoxy resin for molding a rear surface of the flexible PCB, on which an image chip is mounted.

2. The image sensor module of claim 1, wherein the predetermined transparent medium is either glass or an IR filter.

3. The image sensor module of claim 1, wherein the image chip is seated on a hollow area formed in a predetermined portion of the flexible PCB so that the pattern of the image chip can be matched with the first bump, and that the bonded transparent medium can be disposed therebetween.

4. The image sensor module of claim 1, wherein the bumps are composed of a medium having high conductivity such as gold or lead.

5. The image sensor module of claim 1, wherein the

bonding is performed by means of ultrasonic wave or heat.

6. A method for fabricating an image sensor module, comprising the steps of:

forming a printed circuit of a predetermined pattern on
5 an upper surface of a transparent medium;
forming a first bump and a second bump on the upper
surface of the transparent medium;
first bonding the first bump with a pattern of an image
chip so as to be electrically connected to each other;
10 secondly bonding the second bump with a circuit of a
flexible PCB so as to be electrically connected to each
other; and

molding a rear surface of the flexible PCB, on which an
image chip is mounted, by means of epoxy resin.

7. The method of claim 6, wherein the predetermined
transparent medium is either glass or an IR filter.

8. The method of claim 6, wherein the first bonding
step is performed by seating the image chip in the space of
the flexible PCB cut at a size equivalent thereto so that a
20 pattern of the image chip can be matchably bonded with the
first bump, and that the transparent medium can be disposed
therebetween.

9. The method of claim 6, wherein the bumps are
composed of a medium of high conductivity such as gold or
25 lead.

10. The method of claim 6, wherein the bonding is
performed by means of ultrasonic wave or heat.

11. An image sensor module comprising:
a PCB for transferring and transmitting electric
30 signals; an image chip seated in a hollow area formed on a
side surface of the PCB;

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a predetermined transparent medium having a printed circuit of a predetermined pattern on an upper surface thereof;

5 a first bump and a second bump formed on the upper surface of the transparent medium, the first bump being electrically connected to a pattern of an image chip sensor seated on the flexible PCB by bonding, and the second bump being electrically connected to the circuit of the flexible PCB;

10 epoxy resin for molding a rear surface of the flexible PCB, on which an image chip is mounted; and a molded material filled up with the epoxy resin to a glass surface between the first bump and the second bump for maintaining air-tightness.

15 12. The image sensor module of claim 11, wherein the predetermined transparent medium is either glass or an IR filter.

20 13. The image sensor module of claim 11, wherein the image chip is seated on a hollow area formed in a predetermined portion of the flexible PCB so that a pattern of an image chip can be matchably bonded with the first bump, and that the transparent medium can be disposed therebetween.

25 14. The image sensor module of claim 11, wherein the bumps are composed of a medium having high conductivity such as gold or lead.

15. The image sensor module of claim 11, wherein the bonding is performed by means of ultrasonic wave or heat.

16. A method for fabricating an image sensor module, comprising the steps of:

30 forming a printed circuit of a predetermined pattern on an upper surface of a transparent medium;

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forming a first bump and a second bump on the upper surface of the transparent medium;

first bonding the first bump with a pattern of an image chip so as to be electrically connected to each other;

5 secondly bonding the second bump with a circuit of a hard PCB so as to be electrically connected to each other; and

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molding a rear surface of the hard PCB, on which an image chip is mounted, by means of epoxy resin.

10 17. The method of claim 16, wherein the predetermined transparent medium is either glass or an IR filter.

15 18. The method of claim 16, wherein the first bonding step is performed by seating the image chip in the space of the hard PCB cut at a size equivalent thereto so that a pattern of the image chip can be matchably bonded with the first bump, and that the transparent medium can be disposed therebetween.

20 19. The method of claim 16, wherein the bumps are composed of a medium of high conductivity such as gold or lead.

20. The method of claim 16, wherein the bonding is performed by means of ultrasonic wave or heat.

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